Listing of Claims

1. (original) A process for preparing a compound having the structure

which comprises,

- (a) treating diacyl 6-keto-7-bromo-17β-estradiol with an alkali carbonate or bicarbonate in a polar aprotic solvent to give 6-hydroxy-3,17β-diacyldihydroequilenin;
- (b) treating 6-hydroxy-3,17β-diacyldihydroequilenin with base in a protic solvent to give 6-hydroxy-3,17β-dihydroequilenin;
- (c) treating 6-hydroxy-3,17β-dihydroequilenin with an oxidizing agent to provide 6-hydroxyequilenin.
- 2. (original) The process according to claim 1, wherein the base in step (a) is calcium carbonate.
- 3. (original) The process according to claim 1, wherein the base in step (b) is potassium carbonate, and the solvent is an alcohol.
- 4. (original) The process according to claim 1, wherein the oxidizing agent in step (c) is a chromium oxidizing agent, dimethylsulfoxide/oxalyl chloride, sulfurtrioxide-triethylamine complex, or Al(OC₃H₇)₃.

PATENT

5. (original) A process for preparing a compound having the structure

which comprises

- (a) treating diacyl 6-keto-7-bromo-17β-estradiol with an alkali carbonate or bicarbonate in a polar aprotic solvent to give 6-hydroxy-3,17β-diacyldihydroequilenin;
- (b) treating the resulting 6-hydroxy-3,17β-diacyldihydroequilenin with a silylating agent to give 6-O-silylated-3,17β-diacyldihydroequilenin;
- (c) treating the 6-O-silylated-3,17β-diacyldihydroequilenin with a base in a protic or alcoholic solvent to give 6-O-silylated-equilenin-3,17β-diol;
- (d) treating the 6-O-silylated-equilenin-3,17β-diol with an oxidizing agent to provide
 6-O-silylated-equilenin;
- (e) treating 6-O-silylated-equilenin with sulfurtrioxide-triethylamine complex to give triethylammonium-6-O-silylated-equilenin-3-sulfate;
- (f) treating triethylammonium-6-O-silylated-equilenin-3-sulfate with an aqueous sodium base to give sodium-6-O-silylated-equilenin-3-sulfate; and
- (g) treating the 6-O-silylated-3-equilinen-3-sulfate with a reagant suitable for removing the silyl group to give sodium-6-hydroxyequilinen-3-sulfate.
- 6. (original) The process according to claim 5, wherein the silylating agent in step (b) is t-butyldimethylsilyl chloride.

PATENT

- 7. (original) The process according to claim 5, wherein the oxidizing agent in step (d) is a chromium oxidizing agent, dimethylsulfoxide/oxalyl chloride, triethylamine/sulfurtrioxide, or Al(OC₃H₇)₃.
- 8. (original) The process according to claim 5, wherein the base in step (f) is sodium carbonate or sodium hydroxide.
- 9. (original) The process according to claim 5, wherein steps (e) and (f) are run sequentially, without isolating triethylammonium-6-O-silylated-equilenin-3-sulfate.
- 10. (original) The process according to claim 5, wherein the silyl group is removed in step (g) with a fluoride based reagant.
- 11. (original) The process according to claim 10, wherein the flouride based reagant is sodium fluoride.
- 12. (original) A process for preparing sodium-6-hydroxyequilinen-3-sulfate which comprises treating triethylammonium-6-O-silylated-equilenin-3-sulfate with an aqueous sodium base.
- 13. (withdrawn) A compound which is 6-Hydroxy-3, 17β-diacetoxydihydroequilenin.
- 14. (withdrawn) A compound which is 6-O-t-butyldimethylsilyl equilenin-3,17β-diacetate.
- 15. (withdrawn) A compound which is 6-O-t-butyldimethylsilyl equilenin-17β-ol.
- 16. (withdrawn) A compound which is 6-O-t-butyldimethylsilyl equilenin.

PATENT

- 17. (withdrawn) A compound which is triethylammonium-6-O-toutyldimethylsilylequilenin-3-sulfate with tris(hydroxymethyl)aminomethane.
- 18. (withdrawn) A compound which is sodium-6-O-t-butyldimethylsilyl equilenin-3-sulfate.